Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Previously Amended)   An apparatus for simulating an electrical sensor/actuator component, comprising:

a drive module including a model of the sensor/actuator component, said drive module generating interface signals in accordance with signals of said sensor/actuator component being simulated, said drive module further including at least one signal interface with each one of said at least one signal interface including an output stage with a four quadrant amplifier which functions to one of receiver or output power and with each of said at least one signal interfaces being associated with a respective connection pin which is driven by real-time signals from said drive module and wherein said at least one signal interface generates, for each said interface connection pin, one of said interface signals corresponding to the electrical signals of said sensor/actuator component;

wherein each of said at least one signal interface includes a control/regulation circuit for directing current or energy of said generated interface signals in a direction either towards said at least one signal interface or away from said at least one signal interface whereby a sensor or an actuator can be optionally simulated.

2.   (Currently Amended)   An apparatus for simulating an electrical sensor/actuator component, comprising:

a drive module including a model of the sensor/actuator component, said drive module generating interface signals in accordance with signals of said

sensor/actuator component being simulated, said drive module further including a plurality of signal interfaces with each one of said being associated with a respective connection pin which is driven by a real-time signals from said drive module and wherein said plurality of signal interfaces generate, for each said interface connection pin, one of said an interface signals corresponding to the electrical signals of said sensor/actuator component;

a main printed circuit board having one insertion location for each interface connection for each of said interface pins and wherein one of said signal interfaces is provided for each insertion location;

wherein said apparatus includes modular construction in order to provide a separate signal interface for each interface component and wherein each of said plurality of signal interfaces are ~~of substantially identical construction~~ essentially the same to provide generation of logic signals for a data line.

3.   (Original)   The apparatus according to Claim 1, wherein said drive module further includes means for calculating mathematical modules for driving said at least one signal interface and wherein said module generates said real-time signals in order to obtain said interface signals in accordance with the simulated sensor/actuator components at the interface connection pins.

4.   (Canceled).

5.   (Canceled).

6.   (Canceled).

7.   (Original)   The apparatus according to Claim 1, wherein said drive module comprises a computer for providing an equivalent circuit of the sensor/actuator component as said model.

8.   (Currently Amended)   The apparatus according to Claim 1, wherein said model of said drive module is ~~adapted to~~ provides signals required at an interface connection pin by utilizing specific parameters.

9.   (Original)   The apparatus according to Claim 1, further comprising a fault simulation module for generating one of a line interruption and a short circuit.

10.   (Original)   The apparatus according to Claim 1, wherein each of said signal interfaces has a regulating circuit for adjusting one of voltage and current to a value specified by said model.

11.   (Original)   The apparatus according to Claim 10, wherein said regulating circuit includes a feedback arrangement to the drive module in order to provide actual values of regulated variables to said model.

12.   (Canceled).

13.   (Original)   The apparatus according to Claim 2, wherein said drive module further includes means for calculating mathematical modules for driving said at least one signal interface and wherein said module generates said real-time signals in order to obtain said interface signals in accordance with the simulated sensor/actuator components at the interface connection pins.

14.   (Original)   The apparatus according to Claim 2, further including a main printed circuit board having one insertion location for each interface connection for each of said interface pins and wherein one of said signal interfaces is provided for each insertion location.

15.   (Original)   The apparatus according to Claim 2, wherein each of said signal interfaces has an output stage.

16.   (Original)   The apparatus according to Claim 2, wherein said output stage is a four-quadrant amplifier, which can function to output power or to receive power.

17.   (Original)   The apparatus according to Claim 2, wherein said drive module comprises a computer for providing an equivalent circuit of the sensor/actuator component as said model.

18.   (Original)   The apparatus according to Claim 2, wherein said model of said drive module is adapted to signals required at an interface connection pin by utilizing specific parameters.

19.   (Original)   The apparatus according to Claim 2, further comprising a fault simulation module for generating one of a line interruption and a short circuit.

20.   (Original)   The apparatus according to Claim 2, wherein each of said signal interfaces has a regulating circuit for adjusting one of voltage and current to a value specified by said model.